



CLAIMS

In my Patent Application, I stated one Independent Claims and six Dependent Claims, the latter defining the various shapes which could apply to the bottom surface of the wings. The one beneficial statement from a senior patent attorney was that he did not understand my claims. I then reevaluated the Claims section in my manual and realized that all of my Figures illustrated only straight, lateral projections of the bottom of the wings although other shapes are discussed in the Specification. However, it is a rule that 'Every part and feature in every Claim, is shown in the drawings and discussed in the Specification.' Also, Claims recite the bounds or scope of an invention whereas the Specification must teach how to make and use the invention. Therefore, the Claims have been modified and simplified, as follows,

I CLAIM

1. A means for utilizing surfboard type wings mounted on each side of any monohull sailboat
 - (a) said wings are tilted upward at a fixed dihedral angle
 - (b) a said wing will engage the water surface when the boat is heeled to its dihedral angle while simultaneously raising the opposite wing with the sailors aboard.

Whereby the wings will provide the boat with a means to add a large increase in sail area and boat speed.

The revised Claims are essentially generic, stating only where the wings are adapted to a monohull but not what they accomplish. The bottom shaping of the wings function as modified surfboards compromised to mate to various hull shapes and sizes. In particular, the leading edge of a wing is also open for innovation if some V-shape or asymmetry can assist in controlling the water flow into the cockpit when the wing momentarily dips below the surface, or as the hull cuts through a wave. Shaping on wings by designers may also be needed for accommodating the difference in average water turbulence where a boat may be sailed predominately in offshore or inland locations.

As with any boat design, power or sail, the design of the underside of a hull is shaped to meet the requirement for speed, maneuverability or stability in various water conditions. Then the topside may have any layout required to meet the needs of the occupants. The attached wings also have the requirement to mate to any basic hull, in which only their underside is the essence of this

patent and their topside will become part of the hull. Therefore, the basic hull, top and bottom, wing topside, canards, wing folding, sail design and rigging are all left totally to the discretion of the builder. The leeward wing producing a lift, outboard, and the crew weight pushing down on the windward wing, outboard, is a powerful roll stabilization on any monohull boat and it resulted in the name, Twister Wings Sailboat.

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